MURRAY, BURNS & KIENLEN

A Corporation 1616 29th Street, Suite 300 Sacramento, California 95816 Tel. (916) 456-4400 FAX (915) 456-0253

TRANSMITTAL MEMORANDUM

July 28, 1997

JUL 2 8 1997

TO:

CALFED Bay-Delta Program 1416 Ninth Street, Suite 1155 Sacramento, California 95814

FROM:

Gilbert Cosio, Jr.

Murray, Burns and Kienlen

SUBJECT: Transmittal of 1997 Category III Proposal --

Reclamation District No. 2122 - Broad Slough/New York Slough Channel Island Restoration and Habitat Enhancement Project

In accordance with specifications described in the "Request for Proposals, 1997 Category III, Ecosystem Restoration Projects and Programs", transmitted on behalf of Reclamation District No. 2122, are the enclosed ten (10) copies of their Proposal regarding the "Broad Slough/New York Slough Channel Island Restoration and Habitat Enhancement Project".

If you have any questions, or require additional information, please call me at (916)456-4400.

Sincerely,

MURRAY, BURNS & KIENLEN

Gilbert Cosio, Jr.

cc:

Reclamation District No. 2122 c/o Mr. Robert Pacini

7/28/97 3:15 PM

EXECUTIVE SUMMARY

Broad Slough/New York Slough Channel Island Restoration and Habitat Enhancement Project

Applicant Reclamation District No. 2122



Project Description & Primary Biological/Ecological Objectives:

The project involves restoring 1,200 lineal feet of former channel island by building a rock dike facing Broad Slough and New York Slough (Fig. 1 & 2). The dike would be backfilled with dredge or local borrow material from adjacent on-island borrow which would create an area that can support a variety of habitats important to the Delta.

The project will develop waterside and landside elements to improve levee bank stabilization, shallow water habitat, and riparian habitat along a linear stretch of Winter Island. It will demonstrate the feasibility of developing waterside habitat in an area that is prone to erosion. The primary location was selected based on the best area for shallow water and riparian habitat in an area in need of erosion protection. As field investigations and design are advanced, it may be necessary to adjust the final location of the habitat. The proposed project would use available borrow material consisting of silty sand located adjacent to the project from Winter Island's dredge disposal site. Several features of the selected area which may allow success in constructing the site are availability of materials for construction of the berm, the hydrology of the adjacent channel and adequate channel capacity.

The project will create shaded riverine aquatic habitat, mid-channel islands – shoal habitat and tidal perennial aquatic habitat within the listed critical habitat areas for Delta smelt and winter-run chinook salmon. The created habitat will benefit aquatic and terrestrial organisms that are dependent on this kind of habitat. These fish and many other aquatic terrestrial organisms are partially or totally dependent on the habitat created by this proposed project. Shaded riverine and shallow water habitats are seriously lacking in the Western Delta.

The project would restore a berm island that has been lost to the erosive forces of the Delta. The habitat created would be protected from the severe action of the San Joaquin River and the Stockton Deep Water Ship Channel, while the opposite side would be open to sediment deposition. The project will address flood plain and marsh plain, and channel form stressors.

Approach/Tasks/Schedule:

The project approach will be to carry out multi-phases in a clear step-by-step manner to provide public comment, address community concerns and meet CALFED objectives. The phasing will consist of Planning and Design, and Construction. The tasks for each Phase and schedule is presented below:

Phase 1.	A.	Topographic mapping, geotechnical		
		and engineering analyses	_	Oct. 1997 through Nov. 1997
	В.	Biological Surveys		Oct. 1997 through Dec. 1997
	C.	Regulatory permitting	-	Dec. 1997 through May 1998
Phase II.	A.	Final design and contract preparation	_	May 1998 through June 1998
	B.	Construction	_	Aug. 1998 through Oct. 1998
	C.	Vegetation planting		Nov. 1998

Phase III. A. Technical and biological monitoring (3 years)

Nov. 1998 through Nov. 2001

Justification:

The project, as designed, will have several significant features to enhance the environmental values and increase the levee stability in the vicinity of the project. The environmental enhancement would include creation of new shallow water habitat and diversified habitats as the shallow water transitions toward the existing levee. The shallow water depth would reduce wave action caused primarily by wind and boats. Restoration of the channel island will restore the habitat to conditions that are similar to pre-reclamation of the Delta.

Budget Costs:

The estimated budget costs for each phase are as follows:

Phase I	(planning and design)		\$ 98,000
Phase II	(construction)		\$ 427,000
Phase III	(monitoring)	_	\$ 40,000
	TOTAL PROJECT COST	_	\$ 565,000

Third Party Impacts:

It is not anticipated that there will be any third party impacts. The feasibility phase of the project will identify concerns regarding loading and recommend conditions so as not to damage the berm foundation. It is anticipated that the restoration of the in-channel island will not impact the flood carrying capacity of the area since the channel is extremely wide in this area and much of the hydraulics are controlled by the tidal currents.

Applicant Qualifications:

Reclamation District No. 2122 (District) is the public agency responsible for maintenance and rehabilitation of the levees within its jurisdiction. The District has been a participant in the Subventions Program (SB 34) and as such is well acquainted with the CEQA processes, bidding laws, contracting for levee work, and in general flooding issues in the North Delta. Murray, Burns and Kienlen (MBK) has been the District Engineer for well over a decade and has guided the District's Board of Trustees in the above activities.

Monitoring & Data Evaluation:

The project will be monitored for success of both hydraulic and biological improvements to the ecosystem. Hydraulic changes will be documented by completing an as-built survey of the new channel and levee, and evaluating how well the final configuration matches the initial design. Biological monitoring will include documentation of botanical, wildlife, and fisheries resources before and after project construction.

Local Support/Coordination With Other Programs/Compatibility with CALFED

The design of the projects will incorporate advice from key State and federal resource management agencies. The project design will minimize adverse impacts to the land and water habitats, and respect key habitats of rare and endangered species in the Delta area. In addition, the project will need permits or approvals from the Corps of Engineers, the Department of Fish and Game, and the Central Valley Regional Water Quality Control Board. It is anticipated that funding may also be obtained from the Department of Water Resources Delta Levee Subventions Program and the Delta Levee Special Projects Program.

Broad Slough/New York Slough Restoration and Habitat Enhancement Project

Applicant

Reclamation District No. 2122
Winter Island
% Mr. Bob Pacini
5115 Clayton Road, #A
Concord, California 94521-3101

Phone: (510) 689-7474 • FAX: (510) 686-1590

Applicant Type: Public Agency ID # 94-1135191

Technical and Financial Contact

Gilbert Cosio, Jr.
Murray, Burns and Kienlen
1616 - 29th Street, Suite 300
Sacramento, California 95816

Phone: (916) 456-4400 • FAX: (916) 456-0253

Participants/Collaborators in implementation

California Department of Water Resources
Reclamation District No. 2122

RFP Project Group Types

Construction Project

I. PROJECT DESCRIPTION:

The project involves restoring 1,200 lineal feet of former channel island by building a rock dike facing Broad Slough and New York Slough. The dike would be backfilled with dredge material from adjacent on-island borrow which would create an area that can support a variety of habitats important to the Delta (Figures 1 & 2).

The project will import approximately 15,000 tons of clean quarry stone to build a dike that will contain the fill material. Available fill material will be either dredged or imported from on-island borrow. The estimated quantity of fill is 10,000 cu. yds. After construction the shoal habitat will be planted with native vegetation.

The project will develop waterside and landside elements to improve levee bank stabilization, shallow water habitat, and riparian habitat along a linear stretch of Winter Island. It will demonstrate the feasibility of developing waterside habitat in an area that is prone to erosion. The primary location was selected based on the best area for shallow water and riparian habitat in an area in need of erosion protection. As field investigations and design are advanced, it may be necessary to adjust the final location of the habitat. The proposed project would use available borrow material consisting of silty sand located adjacent to the project from Winter Island's dredge disposal site. Several features of the selected area which may allow success in constructing the site are availability of materials for construction of the berm, the hydrology of the adjacent channel and adequate channel capacity.

PROJECT LOCATION

The project is located at the east corner of Winter Island, Contra Costa County, along the left bank San Joaquin River at the confluence with the Sacramento River, see Figure 1.

EXPECTED BENEFITS

It is anticipated that the following benefits will result from the project:

Priority Species & Habitat: The project will create shaded riverine aquatic habitat, mid-channel islands – shoal habitat and tidal perennial aquatic habitat within the listed critical habitat areas for Delta smelt and winter-run chinook salmon. The created habitat will benefit aquatic and terrestrial organisms that are dependent on this kind of habitat. These fish and many other aquatic terrestrial organisms are partially or totally dependent on the habitat created by this proposed project. Shaded riverine and shallow water habitats are seriously lacking in the Western Delta.

The project would restore a berm island that has been lost to the crosive forces of the Delta. The habitat created would be protected from the severe action of the San Joaquin River and the Stockton Deep Water Ship Channel, while the opposite side would be open to sediment deposition. The project will address flood plain and marsh plain, and channel form stressors.

- Levee protection: The project will be developed along a stretch of levee which experiences continued erosion and potential instability if not protected. Creation of habitat with erosion control elements will provide levee protection with reduced riprap placement.
- Data Collection: The project will provide valuable knowledge necessary for habitat development while enhancing levee stability. Data will be collected and documented for use in developing similar projects throughout the Delta. It is consistent with the adaptive management policy of CALFED.
- Flood Control: The project will improve levee stability and offer better flood protection for valuable wildlife habitat and agricultural lands.
- Nutrient Retention/Transformation: The biochemical processes that develop in the wetland sediments will absorb and transform nutrients in reduced forms (such as ammonia) to oxidized forms (such as nitrates). Converted nutrients will be absorbed by the hydrophytic vegetation.
- Overall Water Quality: Water quality will improve to the extent that the acreage of wetlands developed will retain and convert nutrients and filter toxicants, as discussed above.
- Potential Local Community Benefits: The area is not proposed specifically for recreational use. However, the increase in wetland and riparian habitat may increase both hunting and fishing opportunities elsewhere in the Delta. The improved habitat will increase the opportunity for activities such as bird watching and nature photography.

TECHNICAL & BIOLOGICAL JUSTIFICATION

The project, as designed, will have several significant features to enhance the environmental values and increase the levee stability in the vicinity of the project. The environmental enhancement would include creation of new shallow water habitat and diversified habitats as the shallow water transitions toward the existing levee. The shallow water depth would reduce wave action caused primarily by wind and boats. Restoration of the

channel island will restore the habitat to conditions that are similar to pre-reclamation of the Delta.

SCOPE OF WORK

The project will be implemented in three phases: (1) biological, geotechnical, and engineering analysis of the site, (2) construction of the project, and (3) post-monitoring of the project.

Phase I. Biological, geotechnical and engineering analyses

- A. Engineering, surveys, mapping and geotechnical exploration will include soundings to determine bathymetry of the Sacramento River adjacent to Webb Tract levee, soil sampling, levee cross section surveys, and wind and wave analysis. These investigations will determine the engineering constraints needed for proper design.
- B. Biological surveys of pre-project conditions will refine the current design parameters after thorough investigation of environmental factors at the site location.
- C. Regulatory permitting and CEQA/NEPA documentation through an independent contractor. The design will meet all guidelines promulgated by California Department of Fish & Game (DFG), the U. S. Fish and Wildlife Service (USFWS), the National Marine Fisheries Service, and the U. S. Army Corps of Engineers.

Phase II. Construction

- A. Final engineering design and compilation of contract plans and specifications
- B. Construction
- C. Vegetation planting

Phase III. Post Monitoring of Project

A. Post-project technical and biological monitoring (3 years — evaluate and report on performance of project and creation of habitat values). Monitoring, reporting, and operating the project will be the responsibility of RD 2122 in coordination with DFG. Wildlife and vegetation monitoring will be conducted throughout the year, and yearly monitoring reports will document the results.

MONITORING

Technical monitoring will include the following tasks:

- Hydraulic monitoring It is proposed that the completed project will be monitored to evaluate whether hydraulic forces are damaging the project or its habitat.
- Biological monitoring The project will be evaluated annually to document the success of the project to enhance wildlife habitat values.

IMPLEMENTABILITY

Approvals for the project will be required from the U. S. Army Corps of Engineers for an individual permit and the California Department of Fish & Game for a streambed alteration agreement. The Corps permit will also require review for water quality certification requirements by the Regional Water Quality Control Board. The remnant island waterward of the levee will act as the waterward containment for the fill material.

The project will account for the natural hydrodynamic processes to assure project success. The design of the island will incorporate the ideas from both botanists and fish experts, in addition to those of erosion control experts, to provide sustainable high quality habitat and erosion protection for the levee. Despite erosion control features, the berm areas may experience settlement, erosion, or accretion which will be monitored and managed.

The San Joaquin River, adjacent to the proposed project site, is listed critical habitat for the State and federal threatened Delta smelt; and though the federal government does not include the site in the critical habitat of the State and federal endangered winter-run chinook salmon, DFG is concerned about water-related projects in the San Joaquin River. For these reasons, it will be necessary to consult with USFWS, the National Marine Fisheries Service, and DFG during the permit process to alleviate their concerns about impact.

Appropriate Best Management Practices can be employed to reduce and minimize turbidity problems to less than significant. The Central Valley Regional Water Quality Control Board will be consulted to develop BMPs for the project and to obtain water quality certification.

II. COST AND SCHEDULE

Table 1 shows the estimated costs of the tasks described in the Scope of Work section. Funding for this project and subsequent monitoring are requested from CALFED Category III for 100 percent of the total cost. It is anticipated that funding may also be obtained from DFG under its CVPIA matching funds program and the Department of Water Resources Delta Levee Special Projects Program.

Reclamation District No. 2122 plans to cost share the work by obtaining appropriate data and completing a feasibility report prior to the commencement of design work.

Table 1				
Pi	roject Plans and Tasks	Service Contracts	Miscellaneous and other Direct costs	Total Cost
Phase I.	Biological, geotechnical and engineering analyses	52,000	_	52,000
	B. Biological surveys	16,000	-	16,000
	C. Regulatory permitting	30,000	_	30,000
Phase II.	Final design and contract preparation	12,000	_	12,000
	B. Construction	370,000	30,000	400,000
	C. Vegetation planting	15,000		15,000
Phase III.	A. Technical and biological monitoring (3 years)	35,000	5,000	40,000
	TOTAL ESTIMATED COST			\$565,000

Barring delays in the regulatory process, the District hopes to begin construction in August 1998 by adopting the following schedule:

Phase 1.	A.	Biological, geotechnical and engineering analyses	_	Oct. 1997 through Nov. 1997
	B.	Biological surveys	-	Oct. 1997 through Dec. 1997
	C.	Regulatory permitting	÷	Dec. 1997 through May 1998

Phase II. A. Final design and contract preparation

May 1998 through June 1998

B. Construction

- Aug. 1998 through Oct. 1998

C. Vegetation planting

Nov. 1998

Phase III. A. Technical and biological monitoring (3 years)

Nov. 1998 through Nov. 2001

THIRD PARTY IMPACTS

It is not anticipated that there will be any third party impacts. The feasibility phase of the project will identify concerns regarding loading of the adjacent levee and recommend conditions so as not to damage the levee foundation. It is anticipated that the restoration of the in-channel island will not impact the flood carrying capacity of the area since the channel is extremely wide in this area and much of the hydraulics are controlled by the tidal currents.

III. APPLICANT QUALIFICATIONS

Reclamation District No. 2122 (District) is the public agency responsible for maintenance and rehabilitation of the levees within its jurisdiction. The District has been a participant in the Subventions Program (SB 34) and as such is well acquainted with the CEQA processes, bidding laws, contracting for levee work, and in general flooding issues in the North Delta. Murray, Burns and Kienlen (MBK) has been the District Engineer for well over a decade and has guided the District's Board of Trustees in the above activities.

MBK is a consulting civil engineering firm providing services in the general areas of flood control, water supply planning and water rights. As a subset of our flood control clientele, MBK provides engineering services to Delta reclamation districts. MBK personnel involved with Delta reclamation district engineering have extensive experience in water resources engineering and planning. MBK personnel have been, and continue to be, extremely involved in shaping the future of the Delta by sitting on numerous boards and advisory committees regarding such areas as environmental and regulatory issues, funding, engineering and land use.

Consistent with Government Code 4525, Murray, Burns and Kienlen was selected by RD 2122 to provide planning, permitting and engineering services in connection with project planning and construction. The selection was made on the basis of qualifications and demonstrated competence for the requested services, including documentation of fair and reasonable prices.

MBK acts as a consultant for twenty (20) other reclamation districts in the Sacramento-San Joaquin Delta. MBK is also a prime engineering consultant to the Sacramento Area Flood Control Agency (SAFCA) and has been involved as a consultant for many organizations concerned with water conveyance in the Central Valley.

Mr. Gilbert Cosio is principal partner of Murray, Burns and Kienlen who will be responsible for engineering and management of the project. Mr. Cosio would be responsible to coordinate all activities in regard to engineering and environmental services performed for Reclamation District No. 2122. Mr. Cosio has 17 years of experience in flood control, hydrology, hydraulics, water resource planning, drainage water supply, surveying and levee maintenance. Mr. Cosio is currently Principal in charge of all Delta levee reclamation district work for MBK. Mr. Cosio coordinates levee inspections, levee maintenance and rehabilitation projects, competitive bid plans and specification preparation and contract administration for Delta reclamation districts. He also oversees maintenance planning, funding application and claims, regulatory coordination, environmental assessments, CEQA documentation and reports and presentations to respective reclamation district boards of trustees. Mr. Cosio's Delta work

has also led to testimony at public hearings, Reclamation Board hearings and workshops, and State Water Resources Control Board hearings. Mr. Cosio has coordinated levee work and claims with County, State and Federal agencies in charge of disaster assistance. Mr. Cosio is a member of the Delta Coalition, which is a committee involved with developing Legislation of importance to the Delta. Mr. Cosio is also a member of the Habitat Advisory Committee set up to administer the mitigation element of the Delta Levee Subventions Program and a member of the Habitat Advisory Committee subcommittee regarding regulatory permit streamlining for levee maintenance projects.

EA Engineering, Science, and Technology, Inc., is a multidisciplinary environmental consulting firm with a staff of Northern California scientists who specialize in environmental analyses related to water resources. EA's staff have been conducting aquatic studies in the Delta and its tributary watersheds for over 20 years, and have conducted feasibility studies and assessments of many habitat restoration projects.

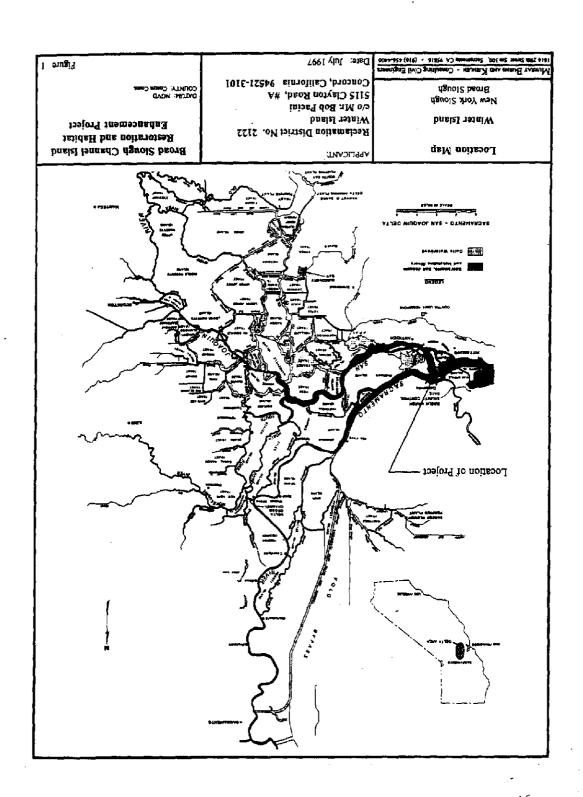
EA Engineering, Science, and Technology has consulted with MBK on Delta projects since 1993. In that capacity, they have provided biological design, monitoring, and survey services to MBK for Delta projects, and completed CEQA compliance documents associated with various habitat improvement projects.

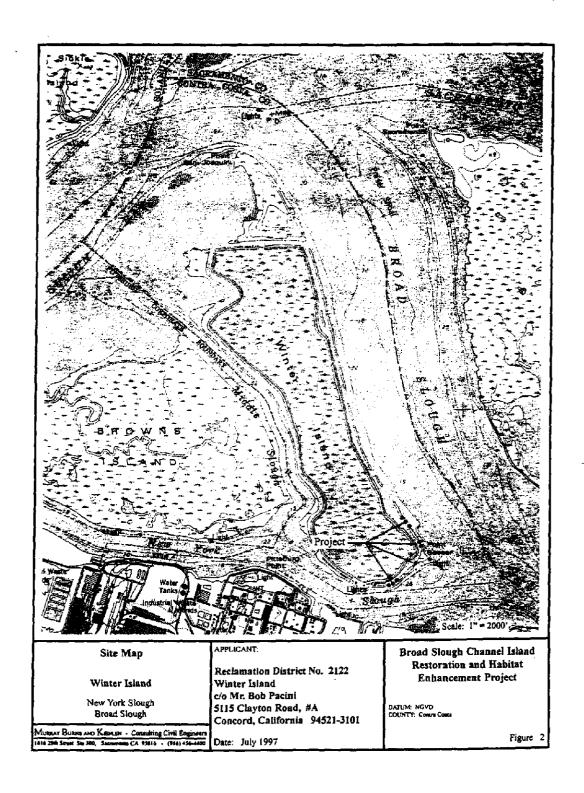
Consistent with Government Code 4525, EA Engineering, Science, and Technology, Inc., was selected by Murray, Burns and Kienlen to provide environmental services in connection with project development and permit processing. The selection was made on the basis of qualifications and demonstrated competence for the requested services, including documentation of fair and reasonable prices.

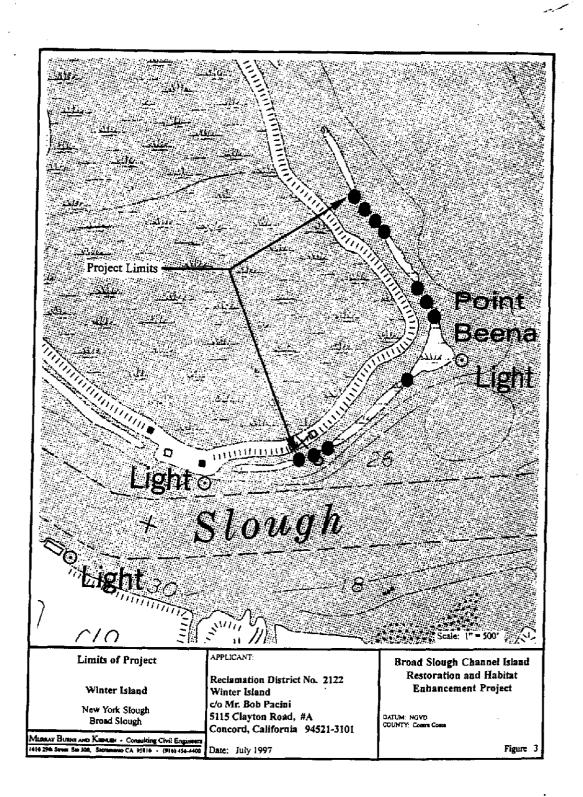
Pursuant to California Government Code §1090, EA Engineering, Science, and Technology, Inc., is disclosing a remote interest in proposals submitted for funding under CALFED's 1997 Category III program. EA staff, as third tier subcontractors to the Bureau of Reclamation, have provided technical and administrative support to CALFED agency staff in the Restoration Coordination Program. In this capacity, EA staff have assisted with documentation of public meetings of the Ecosystem Roundtable, and compiled technical team meeting information for distribution to Roundtable members and the public. EA's legal counsel has determined that EA's participation as a subconsultant in contracts that may be awarded under the Category III program does not constitute a violation of California Government Code §1090.

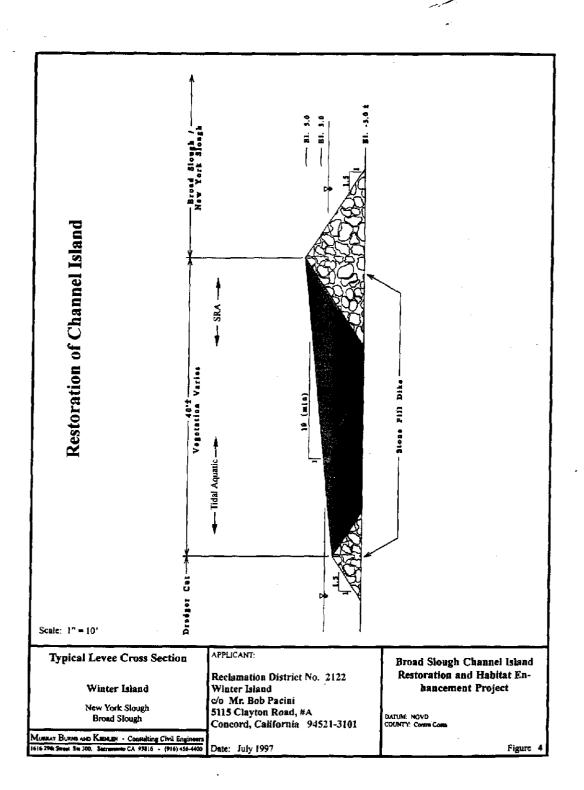
Mr. Scott Wilcox of EA Engineering, Science, and Technology is a senior fisheries biologist whose role will involve technical oversight and management of tasks related to biological monitoring and environmental compliance. His areas of technical expertise include aquatic and terrestrial resource impact assessment, habitat quantification and evaluation, and fisheries analyses in riverine and estuarine systems. His 17 years of experience includes biological investigations for approximately 30 projects within or tributary to the Central Valley and the Delta. Many of these projects involved planning of aquatic habitat restoration actions and characterization of habitat conditions. Relevant project experience includes design, monitoring, and CEQA compliance for levee habitat improvement projects; TES species surveys and Section 7 consultation for Delta smelt; and evaluation of potential construction project impacts on Sacramento splittail. Professional references for similar projects include Frank Wernette (209-948-7800) and Peter Perrine (916-358-2926) of the Department of Fish and Game.

A:\CATIII-A.RPT









	Item !
Agreement No	
Exhibit	

NONCOLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID FOR PUBLIC WORKS

	•
STATE OF CALIFORNIA)	
COUNTY OF Contra Costa)53
ROBERT J. PAC	being first duly sworn, deposes an
says that he or she is PRES.	of
PISTRICT Z	122
	(the bidder)

the party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is gemuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member of agent thereof to effectuate a collusive or sham bid.

DATED: 7-23-97

(person signing for bidder)

BETTY L ORR
COMM. 1065933
NOTARY PUBLIC - CALIFORMA
CONTRA COSTA COUNTY
by Comm. Express July 30, 1899

(Notarial Seal)

Subscribed and sworn to before me on

BETTY L. OR-

NONDISCRIMINATION COMPLIANCE STATEMENT

BMAN YMASMC				
		/		
	77.	1-0-1	1 <i>/</i>	177
	1//5	TKIL	/	1 / /

The company named above (hereinafter referred to as "prospective contractor") hereby certifies, unless specifically exempted, compliance with Government Code Section 12990 (a-f) and California Code of Regulations, Title 2, Division 4, Chapter 5 in matters relating to reporting requirements and the development, implementation and maintenance of a Nondiscrimination Program. Prospective contractor agrees not to unlawfully discriminate, harass or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, disability (including HIV and AIDS), medical condition (cancer), age, marital status, denial of family and medical care leave and denial of pregnancy disability leave.

CERTIFICATION -

I, the official named below, hereby swear that I am duly authorized to legally bind the prospective contractor to the above described certification. I am fully aware that this certification, executed on the date and in the county below, is made under penalty of perjury under the laws of the State of California.

Robert J. Pacini		
JUL 73 1997		
Salut Joem	EXECUTED IN THE COUNTY OF Con try Cas to	
Presidat. Board of Trustee's		
Reclamation District 2122		
PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME		